

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Currently Amended): A code division multiple access transmission system, comprising:

on a transmitting side,

 a means for obtaining a primary modulated wave by performing differential coding phase modulation on a carrier signal in accordance with information; and

 a means for generating a spread signal including a plurality of transmission segments, by multiplying said primary modulated wave by a spread code repeatedly a plurality of times, changing a time region within a symbol period, and for transmitting said generated spread signal; and

on a receiving side,

 a means for detecting a phase difference between a past symbol and a present symbol, by performing quasi-synchronous detection and despreading, and difference operation; and

 a means for outputting the detected phase difference as information of said symbol.

Claim 2 (Original): A code division multiple access transmission system, comprising:

on a transmission side,

a means for obtaining a primary modulated wave by performing phase modulation on a carrier signal in accordance with information;

a means for excluding rapid fluctuation of a phase value in a symbol end area of said primary modulated wave; and

a means for generating a spread signal by multiplying said primary modulated wave, from which the rapid fluctuation of the phase value is excluded, by a spread code, and for transmitting said generated spread signal; and

on a receiving side,

a means for regenerating the information by despread, said despread being performed by obtaining a sum of values that, in turn, are obtained by multiplying the received spread signal by a corresponding despread code.

Claim 3 (Original): A code division multiple access transmission system, comprising:

on a transmitting side,

a means for obtaining a primary modulated wave by performing phase modulation on a carrier signal in accordance with information;

a means for excluding rapid fluctuation of a value of a spread code in an end area of a spread code period; and

a means for generating a spread signal by multiplying said primary modulated wave by a spread code, from which the rapid fluctuation of the value of the spread code is excluded, and for transmitting said generated spread signal; and

on a receiving side,

a means for regenerating the information by despreading, said despreading being performed by obtaining a sum of values that, in turn, are obtained by multiplying the received spread signal by a corresponding despread code.

Claim 4 (Currently Amended): A code division multiple access transmission system, comprising:

on a transmitting side,

a means for obtaining a primary modulated wave by performing phase modulation on a carrier signal in accordance with information; and

a means for generating a spread signal including a plurality of transmission segments, by multiplying said primary modulated wave by a spread code sequence repeatedly a plurality of times within a symbol period, and for transmitting said generated spread signal; and

on a receiving side,

a means for regenerating the information by despreading, said despreading being performed by obtaining a sum of values that, in turn, are obtained by multiplying transmission segments of ~~the~~a received spread signal by a corresponding despread ~~code~~code sequence;

wherein~~[[,]]~~ said means for regenerating, on the receiving side, performs said despreading in virtual segments defined ~~being superposed on~~ by superposing the transmission segments, changing a time region.

Claim 5 (Currently Amended): The A code division multiple access transmission system according to Claim 1, further comprising, ~~on the transmitting side:~~

on a transmitting side,

a means for obtaining a primary modulated wave by performing differential coding phase modulation on a carrier signal in accordance with information;

a means for excluding rapid fluctuation of a phase value in a symbol end area of said primary modulated wave; and

a means for generating a spread signal including a plurality of transmission segments, by multiplying said primary modulated wave by a spread code repeatedly a plurality of times, changing a time region within a symbol period, and for transmitting said spread signal; and

on a receiving side,

a means for detecting a phase difference between a past symbol and a present symbol, by performing quasi-synchronous detection and despreading, and difference operation of a received spread signal; and

a means for outputting the detected phase difference as information of said symbol.

Claim 6 (Currently Amended): The A code division multiple access transmission system according to Claim 1, further comprising, ~~on the transmitting side:~~

on a transmitting side,

a means for obtaining a primary modulated wave by performing differential coding phase modulation on a carrier signal in accordance with information;

a means for excluding rapid fluctuation of a spread code in an end area of a spread code period of said spread code; and

a means for generating a spread signal including a plurality of transmission segments, by multiplying said primary modulated wave by a spread code repeatedly a plurality of times, changing a time region within a symbol period, and for transmitting said spread signal; and

on a receiving side,

a means for detecting a phase difference between a past symbol and a present symbol, by performing quasi-synchronous detection and despreading, and difference operation of a received spread signal; and

a means for outputting the detected phase difference as information of said symbol.

Claim 7 (Currently Amended): The code division multiple access transmission system according to Claim 1, further comprising, on the receiving side:

a means for regenerating the information by despreading, said despreading being performed by obtaining a sum of values that, in turn, are obtained by multiplying transmission segments of the received spread signal by a corresponding despread code sequences;

wherein[[,]] said means for regenerating, on the receiving side, performs said despreading in virtual segments defined ~~being superposed only~~ superposing the transmission segments, changing a time region.

Claim 8 (Original): The code division multiple access transmission system according to Claim 5, further comprising, on the transmitting side:

a means for excluding rapid fluctuation of a spread code in an end area of a spread code period of said spread code.

Claim 9 (Currently Amended): The code division multiple access transmission system according to Claim 5, further comprising, on the receiving side:

a means for regenerating the information by despreading, said despreading being performed by obtaining a sum of values that, in turn, are obtained by multiplying transmission segments of the received spread signal by a corresponding despread code sequences;

_____ wherein[[.]] said means for regenerating, on the receiving side, performs said despreading in virtual segments defined ~~being superposed on~~ by superposing the transmission segments, changing a time region.

Claim 10 (Currently Amended): The code division multiple access transmission system according to Claim 6, further comprising, on the receiving side:

a means for regenerating the information by despreading, said despreading being performed by obtaining a sum of values that, in turn, are obtained by multiplying transmission segments of the received spread signal by a corresponding despread ~~code~~code;

_____wherein[[,]] said means for regenerating₁ on the receiving side₁ performs said despreading in virtual segments defined ~~being superposed on~~by superposing the transmission segments, changing a time region.

Claim 11 (Currently Amended): The code division multiple access transmission system according to Claim 8, further comprising, on the receiving side:

a means for regenerating the information by despreading, said despreading being performed by obtaining a sum of values that, in turn, are obtained by multiplying transmission segments of the received spread signal by a corresponding despread code-sequences;

_____wherein[[,]] said means for regenerating₁ on the receiving side₁ performs said despreading in virtual segments defined ~~being superposed on~~by superposing the transmission segments, changing a time region.

Claim 12 (Original): The code division multiple access transmission system according to Claim 2, further comprising, on the transmitting side:

a means for excluding rapid fluctuation of a spread code in an end area of a spread code period of said spread code.

Claim 13 (Currently Amended): The code division multiple access transmission system according to Claim 2, wherein:

said means for regenerating₁ on the receiving side₁ performs said despreading in virtual segments defined ~~being superposed on~~ by superposing the transmission segments.

Claim 14 (Currently Amended): The code division multiple access transmission system according to Claim 12, wherein:

said means for regenerating₁ on the receiving side₁ performs said despreading in virtual segments defined ~~being superposed on~~ by superposing the transmission segments.

Claim 15 (Currently Amended): The code division multiple access receiving system according to Claim 3, wherein:

said means for regenerating₁ on the receiving side₁ performs said despreading in virtual segments defined ~~being superposed on~~ by superposing the transmission segments.

Claim 16 (New): The code division multiple access transmission system according to Claim 4, further comprising, on the transmitting side:

a means for excluding rapid fluctuation of a spread code in an end area of a spread code period of said spread code sequence.

Claim 17 (New): The code division multiple access transmission system according to Claim 7, further comprising, on the transmitting side:

a means for excluding rapid fluctuation of a spread code in an end area of a spread code period of said spread code sequence.